

3. (Amended) A semiconductor device in which a plurality of semiconductor elements are formed on a substrate, wherein

in some or all of said semiconductor elements, a channel width of a channel region formed in a semiconductor layer to which laser annealing is applied is larger than a channel length thereof, and a channel width direction is formed in a direction different from a major-axis direction and a minor-axis direction of a laser-beam irradiated region at the time of application of said laser annealing.

5. (Amended) A display device, comprising:

a plurality of pixel electrodes arranged on a substrate;

a plurality of first thin-film transistors connected to corresponding pixel electrodes among said plurality of pixel electrodes for supplying signals for operating pixels to the connected pixel electrodes; and

a plurality of second thin-film transistors constituting a scanning drive circuit for scanning said plurality of first thin-film transistors and/or a display drive circuit for supplying display signals to said plurality of first thin-film transistors, wherein

in some or all of said plurality of second thin-film transistors, a channel width of a channel region formed in a semiconductor film to which laser annealing is applied is larger than a channel length thereof, and a channel width direction is neither vertical to nor parallel with regard to a side direction of said substrate.

9. (Amended) A display device, comprising:

a plurality of pixel electrodes arranged on a substrate;

a plurality of first thin-film transistors connected to corresponding pixel electrodes among said plurality of pixel electrodes for supplying signals for operating pixels to the connected pixel electrodes; and

a plurality of second thin-film transistors constituting a scanning drive circuit for scanning said plurality of first thin-film transistors and/or a display drive

circuit for supplying display signals to said plurality of first thin-film transistors, wherein

in some or all of said plurality of second thin-film transistors, a channel width of a channel region formed in a semiconductor film to which laser annealing is applied is larger than a channel length thereof, and a channel width direction is formed in a direction different from a side direction of said substrate, and

said channel width direction of said some or all of second thin-film transistors is set to a direction of about 45° relative to any one or all of a plurality of side directions of said substrate.

10. (Amended) A display device, comprising:

a plurality of pixel electrodes arranged on a substrate;

a plurality of first thin-film transistors connected to corresponding pixel electrodes among said plurality of pixel electrodes for supplying signals for operating pixels to the connected pixel electrodes; and

a plurality of second thin-film transistors constituting a scanning drive circuit for scanning said plurality of first thin-film transistors and/or a display drive circuit for supplying display signals to said plurality of first thin-film transistors, wherein

in some or all of said plurality of second thin-film transistors, a channel width of a channel region formed in a semiconductor film to which laser annealing is applied is larger than a channel length thereof, and a channel width direction is formed in a direction different from a major-axis direction and a minor-axis direction of a laser-beam irradiated region at the time of application of said laser annealing.

14. (Amended) A display device, comprising:

a plurality of pixel electrodes arranged on a substrate;

a plurality of first thin-film transistors connected to corresponding pixel electrodes among said plurality of pixel electrodes for supplying signals for operating pixels to the connected pixel electrodes; and

a plurality of second thin-film transistors constituting a scanning drive circuit for scanning said plurality of first thin-film transistors and/or a display drive circuit for supplying display signals to said plurality of first thin-film transistors, wherein

in some or all of said plurality of second thin-film transistors, a channel width of a channel region formed in a semiconductor film to which laser annealing is applied is larger than a channel length thereof, and a channel width direction is formed in a direction different from a major-axis direction and/or a minor-axis direction of a laser-beam irradiated region at the time of application of said laser annealing, and

said channel width direction of said some or all of second thin-film transistors is set to a direction of about 45° relative to the major-axis direction and/or the minor-axis direction of said laser-beam irradiated region.

17. (Amended) A liquid crystal display device, comprising:

a plurality of pixel electrodes arranged on one of a pair of substrates holding a liquid crystal therebetween;

a plurality of first thin-film transistors connected to corresponding pixel electrodes among said plurality of pixel electrodes for supplying signals for operating the liquid crystal to the connected pixel electrodes; and

a plurality of second thin-film transistors constituting a scanning drive circuit for scanning said plurality of first thin-film transistors and/or a display drive circuit for supplying display signals to said plurality of first thin-film transistors,

channel regions of said plurality of first and second thin-film transistors being formed in a semiconductor film to which laser annealing is applied, and

in some or all of said plurality of second thin-film transistors, a channel width being larger than a channel length, and a channel width direction of some or all of second thin-film transistors being formed non-parallel with and non-orthogonal to a channel width direction of said first thin-film transistors,

wherein

among said plurality of second thin-film transistors, said some or all of second thin-film transistors in which the channel width direction is formed non-parallel with and non-orthogonal to the channel width direction of said first thin-film transistors

are used, in said display drive circuit, as sampling transistors for sampling video signals at a predetermined timing and supplying said display signals to the corresponding plurality of first thin-film transistors.

18. (Amended) A liquid crystal display device, comprising:

a plurality of pixel electrodes arranged on one of a pair of substrates holding a liquid crystal therebetween;

a plurality of first thin-film transistors connected to corresponding pixel electrodes among said plurality of pixel electrodes for supplying signals for operating the liquid crystal to the connected pixel electrodes; and

a plurality of second thin-film transistors constituting a scanning drive circuit for scanning said plurality of first thin-film transistors and/or a display drive circuit for supplying display signals to said plurality of first thin-film transistors,

channel regions of said plurality of first and second thin-film transistors being formed in a semiconductor film to which laser annealing is applied, and

in some or all of said plurality of second thin-film transistors, a channel width being larger than a channel length, and a channel width direction of some or all of second thin-film transistors being formed non-parallel with and non-orthogonal to a channel width direction of said first thin-film transistors,

wherein

said display drive circuit comprises:

a video signal line to which the video signals are supplied from outside, sampling transistors for sampling the video signals from said video signal line at a predetermined timing and supplying said display signals to the corresponding plurality of first thin-film transistors, and a shift register for controlling switching operation of said sampling transistors,

and wherein, among said plurality of second thin-film transistors, said some or all of second thin-film transistors in which the channel width direction is formed non-parallel with and non-orthogonal to the channel width direction of said first thin-film transistors

are used in said sampling transistors and the shift register.

20. (Amended) A liquid crystal display device, comprising:

a plurality of pixel electrodes arranged on one of a pair of substrates holding a liquid crystal therebetween;

a plurality of first thin-film transistors connected to corresponding pixel electrodes among said plurality of pixel electrodes for supplying signals for operating the liquid crystal to the connected pixel electrodes; and

a plurality of second thin-film transistors constituting a scanning drive circuit for scanning said plurality of first thin-film transistors and/or a display drive circuit for supplying display signals to said plurality of first thin-film transistors,

channel regions of said plurality of first and second thin-film transistors being formed in a semiconductor film to which laser annealing is applied, and

in some or all of said plurality of second thin-film transistors, a channel width being larger than a channel length, and a channel width direction of some or all of second thin-film transistors being formed non-parallel with and non-orthogonal to a channel width direction of said first thin-film transistors,

wherein

said channel width direction of the channel region of said some or all of second thin-film transistors is set to a direction of about 45° relative to the channel width direction of said first thin-film transistors.

21. (Amended) A display device, comprising:

a plurality of pixel electrodes arranged on a substrate;

a plurality of first thin-film transistors connected to corresponding pixel electrodes among said plurality of pixel electrodes for supplying signals for operating pixels to the connected pixel electrodes; and

a plurality of second thin-film transistors constituting a scanning drive circuit for scanning said plurality of first thin-film transistors and/or a display drive circuit for supplying display signals to said plurality of first thin-film transistors, wherein

in some or all of said plurality of second thin-film transistors, a channel width of a channel region formed in a semiconductor film to which laser annealing is applied is larger than a channel length thereof, and a channel width direction is formed in a direction different from a major-axis direction and/or a minor-axis direction of a laser-beam irradiated region at the time of application of said laser annealing, and

the channel width of some or all of said plurality of second thin-film transistors is formed neither parallel with nor orthogonal to a channel width direction of said plurality of first thin-film transistors.

22. (Amended) A display device, comprising:

a plurality of pixel electrodes arranged on a substrate;

a plurality of first thin-film transistors connected to corresponding pixel electrodes among said plurality of pixel electrodes for supplying signals for operating pixels to the connected pixel electrodes; and

a plurality of second thin-film transistors constituting a scanning drive circuit for scanning said plurality of first thin-film transistors and/or a display drive circuit for supplying display signals to said plurality of first thin-film transistors, wherein

in some or all of said plurality of second thin-film transistors, a channel width of a channel region formed in a semiconductor film to which laser annealing is applied is larger than a channel length thereof, and a channel width direction is formed in a direction different from a major-axis direction and/or a minor-axis

direction of a laser-beam irradiated region at the time of application of said laser annealing,

the channel width of some or all of said plurality of second thin-film transistors is formed neither parallel with nor orthogonal to a channel width direction of said plurality of first thin-film transistors, and

said display drive circuit comprises:

a video signal line to which the video signals are supplied from outside, sampling transistors for sampling the video signals from said video signal line at a predetermined timing and supplying said display signals to the corresponding plurality of first thin-film transistors, and a shift register for controlling switching operation of said sampling transistors,

and wherein, among said plurality of second thin-film transistors, said some or all of second thin-film transistors in which the channel width is larger than the channel length and the channel width direction is formed in a direction different from the major-axis direction and/or the minor-axis direction of said laser beam irradiated region are used in said sampling transistors and the shift register.